

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

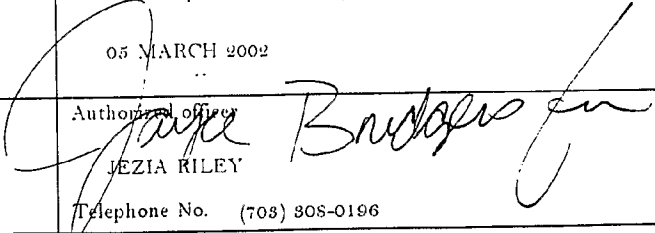
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REC'D 21 MAR 2002

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|---|--|---|
| Applicant's or agent's file reference 10589-004-22 | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) | |
| International application No. PCT/US00/27389 | International filing date (day/month/year) 04 OCTOBER 2000 | Priority date (day/month/year) 04 OCTOBER 1999 |
| International Patent Classification (IPC) or national classification and IPC IPC(7): C12Q 1/68; C07H 19/00, 21/00; A61K 38/00 and US Cl.: 435/6; 536/22.1, 25.3; 530/300 | | |
| Applicant UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY | | |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

| | |
|--|---|
| Date of submission of the demand 01 MAY 2001 | Date of completion of this report 05 MARCH 2002 |
| Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 | Authorized officer  JEZIA RILEY |
| Facsimile No. (703) 305-3230 | Telephone No. (703) 308-0196 |

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/27389

I. Basis of the report

1. With regard to the elements of the international application:*

☒ the international application as originally filed☒ the description:

pages 1-34

pages NONE, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of

☒ the claims:

pages 35-46

pages NONE, as originally filed

pages NONE, as amended (together with any statement) under Article 19

pages NONE, filed with the demand

pages NONE, filed with the letter of

☒ the drawings:

pages 1-4

pages NONE, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of

☒ the sequence listing part of the description.

pages NONE

pages NONE, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☒ The amendments have resulted in the cancellation of:☒ the description, pages NONE☒ the claims, Nos. NONE☒ the drawings, sheets/fig. NONE5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

**Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/27369

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. statement**

Novelty (N)

| | | |
|--------|-------------|-----|
| Claims | <u>1-62</u> | YES |
| Claims | <u>NONE</u> | NO |

Inventive Step (IS)

| | | |
|--------|-------------|-----|
| Claims | <u>NONE</u> | YES |
| Claims | <u>1-62</u> | NO |

Industrial Applicability (IA)

| | | |
|--------|-------------|-----|
| Claims | <u>1-62</u> | YES |
| Claims | <u>NONE</u> | NO |

2. citations and explanations (Rule 70.7)

Claims 1-62 lack an inventive step under PCT Article 33(3) as being obvious over Giordano et al. (6,004,749) in view of Spinella (5,666,341).

Giordano et al. discloses method for identifying compounds affecting RNA/RNA binding protein interactions and for identifying compounds that modulated such interactions which could be useful for regulating the expression of RNA molecules of interest. Such interactions are facilitated in a binding solution. The binding solution contains one or more RNA molecules and buffer components. RNA molecules can be part of a crude cellular or nuclear extract. RNA molecules can also be made by in vitro transcription or by direct synthesis. Detection of interactions between RNA binding proteins and RNA molecules can be facilitated by attaching a detectable label to the RNA molecule. (see columns 4-14). Suitable pharmaceutical vehicles such as liposome can be used for administration. (columns 16-17).

Spinella et al. disclose method for rapidly screening member compounds of a combinatorial library for potential biological activity, in which the protein may be immobilized on a solid support in such way as to allow binding of the binding partner. (see claims).

It would have been obvious at the time the invention was made to immobilized the test compound on solid support as taught by Spinella et al. The motivation is that after the interaction the immobilized complex may be washed to eliminate other components and the complex can be eluted to produce an enriched population of candidate compounds (Spinella column 11).

Applicants have the arguments that the references do not suggest the instant invention because the references are directed to competitive type assay as opposed to the instant invention. This is not convincing because the feature upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the description, limitations from the description are not read into the claims.

----- NEW CITATIONS -----

(Continued on Supplemental Sheet.)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):
US 6,004,749 A (GIORDANO et al) 21 December 1999, see column 4-17.
US 5,866,341 A (SPINELLA et al) 02 February 1999, see column 11 and claims.